



A periodic report from THE NATIONAL DIGITAL LIBRARY PROGRAM THE LIBRARY OF CONGRESS

Getting a New Home: LC's Internet Presence Has Redesigned Homepage

An already popular site on the Internet, one that has been cited by Point Communications and others as being one of the best, is likely to be getting a lot more traffic as a result of a redesigned homepage.

Under the ultimate direction of Dr. Billington and Associate Librarian Suzanne Thorin (who has since left the Library), a new homepage for the Library's World Wide Web site (<http://www.loc.gov/>) debuted July 6. It features more graphics and direct links to sites such as the American Memory historical collections, the THOMAS congressional database, the on-line catalog, copyright information and publications (such as the *Information Bulletin* and *Civilization* magazine).

The redesign was a collaborative effort overseen by this writer and the National Digital Library (NDL) Program's Virginia Sorkin, co-chairs of the Library's Internet Operations Team. While the Operations Team leaders oversaw the work, it was a group of designers who actually brought ideas to fruition. Robert Kinneary, Dominique Pickett, Glenn Ricci and David Yang, under the guidance of Jeff Bridgers, worked closely together, with advice from Elizabeth Miller of Library Services, Jill Brett, Public Affairs officer, and Beth Davis Brown of the NDL Program. Ben Shneiderman, head of the



The Library's redesigned homepage is lively with color and graphics, and should entice even more users inside.

Human-Computer Interaction Laboratory at the University of Maryland at College Park, served as a consultant.

"The project was truly collaborative, with all concerned providing input into the final design," said Ms. Sorkin. "We were also able to accomplish our goal of an early July debut in a very short time."

The redesign of the homepage began with a March 22 meeting of the Library's Executive Committee, which decided to expand current policy-making and operations for the Library's Internet site. The committee came to the conclusion that "the Library's Internet presence is now the major publication of the Library of Congress" and that new Operations and Policy teams would be formed to direct Internet activities.

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There was to
be no lingo
allowed
on the
Library's
new
homepage.

Homepage, from page 1

Four days later, the Policy Team met with Dr. Billington and the Executive Committee. Dr. Shneiderman began by presenting samplings of Web site designs, offering a critique of each. Dr. Billington stressed that the new homepage must have "maximum appeal to the American people," be informative and eliminate all lingo in its verbiage. The "flagship" programs presented on the page were to be the American Memory historical collections, the on-line catalog, THOMAS and the electronic copyright deposit system (CORDS), now being tested.

The designers worked to develop three graphic designs. On June 6 these prototypes were made available on a Web test site so that all staff working on the project could comment on the merits of each. Dr. Shneiderman made a presentation to Dr. Billington, who preferred the design with the boldest graphics. Again, the homepage was mounted on the test site for comments, and the Policy Team met on June 21 for a final critique. By June 27 all comments had been taken into consideration and a new prototype was developed.

Then a test phase began in which teachers, students and members of the general public were invited to use the site. Their comments were recorded and taken under advisement. As of press time, the final touches were being made.

What's next? The teams will begin work on redesigning the "subpages," to provide a common look to the Library's Web presence that still allows for variations.

—Guy Lamolinara
Public Affairs Office

LIBRARY'S HOMEPAGES
ARE WINNERS

☆☆☆☆

Various Library of Congress homepages have been cited for excellence by several Internet rating services.

Point Communications has named the main homepage, the American Memory historical collections, THOMAS, the "African American Mosaic" exhibit and the sites for the American Folklife Center and Newspaper and Current Periodicals Reading Room in its "Top 5% of All Web Sites" listing.

Magellan, another Internet rating service, has given four stars to the homepage, the on-line exhibits, LC MARVEL and the American Memory historical collections. Magellan gave three stars to THOMAS.

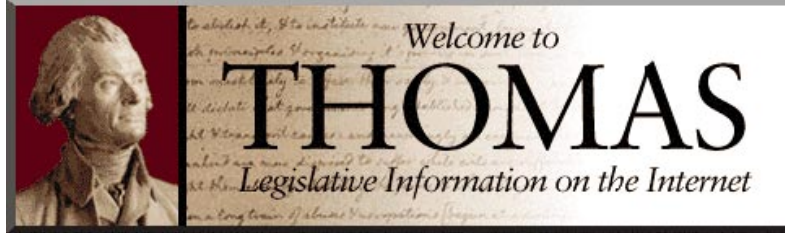
These initiatives can all be accessed from the main homepage at

<http://www.loc.gov/>

Now that the new homepage is in the "public domain," the Library is interested in what the broader public thinks. After using the page, feel free to click on the comment area and tell us.

A New Look for THOMAS

*Legislative System
Gets a Face-Lift*



On Jan. 5, 1995, the Library's legislative system known as THOMAS made its debut on Internet, and with it came an on-line look at the workings of the U.S. Congress.

Named for Thomas Jefferson, the Library's spiritual founder, THOMAS has experienced a steady growth in usage, with approximately 1.7 million transactions currently being logged monthly. Encouraged by this strong interest on the part of Congress and the public to view the full text of bills introduced by the 103rd and 104th Congresses and the Congressional Record, the Library's Information Technology Services office (ITS) has continued to enhance THOMAS by adding new files and features.

The Uniform Resource Locator for THOMAS is <http://thomas.loc.gov/>. It can also be accessed from the Library's main homepage.

In September 1995 the Bill Summary and Status file (or Bill Digest) was incorporated into THOMAS to facilitate searches of legislation introduced in the 104th Congress. Initially introduced more than 20 years ago into the Library's information retrieval system (SCORPIO), the Bill Digest, prepared by the Congressional Research Service, enables users to search for legislative information by keyword, index term, bill, amendment or public law number, sponsor/co-sponsor, official title, committee/subcommittee or by a combination of up to three of these search terms. The THOMAS version of the Bill Digest goes a step further by providing links to the full text of a bill and to pertinent portions of the Congressional Record.

Similarly, the Congressional Record Index was added to the THOMAS system last fall to facilitate searches through the Congressional Record. Like the Bill Digest file, it also provides

links to the full text of the document. Users may click on specific pages to be connected to the corresponding pages within the Congressional Record.

"Major Legislation" was also added to THOMAS. As its name implies, this file tracks major bills receiving floor action in the 104th Congress, and is prepared by legislative analysts in the Congressional Research Service. These bills may be searched by topic, popular or short title, or bill number/type. Major legislation that has been enacted into law or that is under consideration during the current and previous weeks is listed accordingly. The Major Legislation file also contains links to the Bill Digest file, which gives users an overview and status of the legislation before they view it in its entirety. They may then retrieve the full text of these documents and also retrieve the portions of the Congressional Record where it is referenced.

Additional enhancements are in production. Planned for a summer release are changes in graphic design that will not only improve the system's appearance but facilitate navigation both within the THOMAS system and through connections to other Internet resources. The impending addition of House and Senate Committee reports, and links to House and Senate Committee homepages will not only increase the legislative content of THOMAS but reveal the process that takes place from the introduction of a bill until it receives floor action.

Users will also soon be able to access historical documents such as the text of the Declaration of Independence, the Constitution, the Federalist Papers and broadsides and papers pertaining to the Continental Congress and

"Continued enhancements to the THOMAS system reflect the Library's commitment to following Congress's lead in opening up the legislative process to the American people."

—Herbert Becker
Director of
Information
Technology Services

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Librarian of Congress James Billington calls the Library's on-line collections "the best of American creativity."

Three New Collections Debut

The National Digital Library Program has recently made available three new on-line collections of American historical materials. The new offerings bring to 16 the number of collections available from the Library at <http://www.loc.gov/>. These multimedia collections, which include photographs, pamphlets, daguerreotypes, manuscripts, sound recordings and films, represent one of the most important sources of high-quality intellectual content freely available on the Internet.

"Young learners as well as learners of all ages will now be able to benefit from these unique collections that illuminate the American experience," said James H. Billington, the Librarian of Congress. "The 16 collections on-line from the Library of Congress illustrate the best of American creativity."

The new collections will be especially useful to K-12 students and teachers, who will also be able to access them through the Library's Learning Page, which offers education-related help in searching collections by the Events, People, Time and Places of American history at (<http://lcweb2.loc.gov/ammem/ndlpedu/>). "Because our surveys showed us that the K-12 community is the most frequent user of our electronic offerings, we are eager to integrate the new collections with the Learning Page, which focuses on education," said Martha Dexter of the National Digital Library Program's educational services area.

—Guy Lamolinara
Public Affairs Office

Carleton E. Watkins's photograph of mountain and stream in Yosemite National Park, California. Watkins was one of the first to photograph Yosemite commercially.



The Evolution of the Conservation Movement 1850-1920

This collection of 60 books, 548 congressional and presidential documents, 170 prints and photographs, manuscripts and one motion picture documents the formation and cultural foundations of the movement to conserve and protect America's natural heritage.

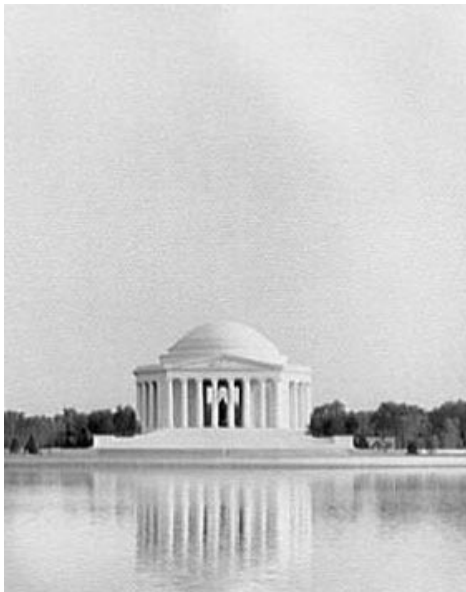
*More collection photographs
on the next page*

**Gottscho-Schleisner
Photographs
1932–1960**

The 29,300 photographs in this collection offer many images from the work of architectural photographers Samuel Gottscho and William Schleisner. Their pictures document building styles and trends throughout America. Unique images also include scenes from the 1939 New York World's Fair.



Gottscho-Schleisner's
Ellis Island
ferry house



Horydczak's
Jefferson Memorial,
probably used for
postcards or
guidebooks

**Theodor Horydczak
Photographs
1920–1950**

These 14,350 photographs primarily feature images of Washington as a developing urban center, chronicling the city's social and cultural life through its events, organizations, embassies, museums and libraries.

THOMAS, continued from page 3

1789 Constitutional Conventions. The ability to perform keyword searches on these documents will greatly ease research on the founding of the nation and its governance.

"Continual enhancements to the THOMAS system reflect the Library's commitment to following Congress's lead in opening up the legislative process to the American people," said Herbert Becker, director of Information Technology Services. "Our efforts have been rewarded, both by increased usage of the system,

and public recognition, such as a recent commendation from the Coalition on Government Information," a group initiated by the American Library Association. As part of its Freedom of Information Day celebration, the coalition praised the THOMAS system for "ensuring the public's right to know."

—Audrey Fischer
Audrey Fischer is a writer-editor
in Information Technology Systems

LOCIS (Library of Congress Information System) is now open 24 hours a day to accommodate all global time zones.

Strength in numbers

Dramatic Increase in LC Computer Systems Usage

During the past four years, usage of the Library's computer systems has nearly tripled.

The Library recorded 25.8 million transactions in April 1996 for all computer systems, compared to 8 million transactions in April 1992. The 1992 figure includes only LC's mainframe computer, which supports the Library's heavily used LOCIS system, which offers the on-line public access catalog, among other information. The new non-mainframe systems such as the RS6000 UNIX servers now support such systems as MARVEL and the World Wide Web offerings, which include THOMAS and the American Memory historical collections.

"This is not surprising if one stops to consider that until 1992, outside usage of the Library's database systems was very limited," notes Herbert Becker, director of Information Technology Services (ITS). "That is, these systems were mainly used internally to perform library and administrative functions [including copyright registration and recordation] or to serve the reference needs of Congress and on-site patrons."

In 1992 the Library took the first step toward increasing public access to its holdings by mounting its first on-line exhibit, "Revelations from the Russian Archives." This exhibit was made accessible via Internet's anonymous FTP (file transfer protocol) facility. A major shift occurred the following year when the Library first provided access via the Internet to LOCIS (Library of Congress Information System), which includes an on-line computer version of the Library's bibliographic data that had been developed during the 1970s.

Mr. Becker recalls, "On April 30, 1993, ITS made it technically possible to access LOCIS, a mainframe-based system, via Internet. At that

time, more than 28 million records in more than 30 files were made available to 60 simultaneous users. Today, LOCIS is accessible by 90 simultaneous users." Several months ago, the hours of availability were extended beyond midnight to 24 hours per day to accommodate the varying time zones of the Library's global users. This excludes Saturdays when the system is brought down at 5 p.m. for maintenance. Of the 18.5 million monthly mainframe transactions in April, more than 10 million came from the LOCIS system. This figure is up from more than 4 million a year ago. Public usage accounts for approximately 40 percent of the total.

During the next two years, the Library began to provide access to non-mainframe databases, which are supported by RS 6000 UNIX servers. In July 1993 the Library introduced its campus-wide information system, or gopher, known as LC MARVEL (Machine Assisted Realization of the Virtual Electronic Library). MARVEL provides information about the Library of Congress, such as hours of operation, list of public events, text of publications, and a staff telephone directory as well as provides links to LOCIS and other Internet sites. Usage of the MARVEL system climbed steadily for two years, peaking at over 2 million monthly transactions in March 1995.

In June 1994 the Library established a server on the World Wide Web, which currently offers resources such as historical collections, on-line exhibitions and a legislative information system known as THOMAS, which made its debut in January 1995. The number of people accessing the Library's web site is on the rise. The Library processed about 4.3 million LC Web transactions in April, as compared with approximately 1.5 million monthly transactions last year. As expected, usage of the MARVEL system has begun to decline as usage of the Library's Web site continues to increase since the Web offers some of the same information as was previously available solely from MARVEL. Usage of MARVEL accounted

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Usage, continued from page 6

for about 1 million transactions in April; 200,000 transactions came from FTP (file transfer protocol) and WAIS (wide-area information systems).

The THOMAS system has also been well-received, with more than 1.7 million transactions logged in April (an increase of more than 500,000 transactions per month since its introduction). THOMAS offers information about the workings of Congress, including resources such as the full text of bills for the 103rd and 104th Congresses, the Bill Summary and Status file, the Congressional Record and the Congressional Record Index.

Clearly, the Library's databases have been enormously popular with outside users. Approximately 40 percent of access to the Library's mainframe system (LOCIS) and non-mainframe systems (all other offerings) is from outside users. That figure jumps to 93 percent for the non-mainframe systems alone.

The upward trend promises to continue as the Library continues to share an ever-increasing portion of its vast and unique resources with users around the world," predicts Mr. Becker. "Therefore, enhancing the Library's technical infrastructure to meet the growing demand is a high priority. This includes increases in computing power and storage capability, as well as advances in system architecture and network management."

Some infrastructure improvements have already been completed while others are under

way. In May 1995 ITS successfully completed a major upgrade of the Library's mainframe computer system. Two mainframe computers were replaced by one larger and faster machine, resulting in significantly reduced response time for simultaneous users of the Library's databases both internally and via Internet.

The addition of two RS6000 computers to the open systems server facility more than doubled the on-line data storage capacity. Inter-server connectivity and the speed of data transfer between the servers was enhanced dramatically by the installation of an FDDI local area network, which connects the servers. To handle the projected mass storage requirements of the National Digital Library, an IBM ADSM (AdStar Distributed Storage Management) system was recently installed to handle daily backup and recovery functions as well as disaster recovery for data residing on the RS6000 servers.

Similarly, a recently installed Hierarchical Storage Management (HSM) system automatically moves data to maximize existing storage space. A 3494 MagStar robotic tape library was also installed with a capacity of 495 tape cartridges, capable of storing 8.2 terabytes of data.

"During the past decade, the Library has remained forward-looking in investigating, preparing for and utilizing new technologies," said Mr. Becker. "Similarly, the groundwork is now being laid to meet the Library's mission as it enters the 21st century."

—Audrey Fischer
Information Technology Systems

The groundwork is being laid to meet the Library's mission as it enters the 21st century.

Mainframe and Non-Mainframe Systems Usage

(Figures based on April 1996 statistics)

	Mainframe ¹	Non-Mainframe ²	Total
Internal usage	14.5 million	.5 million	15 million
Outside usage	4 million	6.8 million	10.8 million
Total	18.5 million	7.3 million	25.8 million*

¹ Includes the LOCIS system

² Includes LC World Wide Web (including THOMAS), MARVEL, WAIS and FTP

* As compared with an average 8 million monthly mainframe transactions in 1992

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Guidelines Available for LC/Ameritech National Digital Library Competition

Guidelines for the Library of Congress/Ameritech National Digital Library Competition were made available at the American Library Association Annual Convention in New York City July 6-9.

Made possible by a \$2 million grant from Ameritech to the Library's National Digital Library Program, the competition will allow all libraries, archives, historical societies and other repositories in the United States (except federal libraries) that hold primary source materials in American history and culture to apply for awards to digitize their collections. These collections will become part of the National Digital Library.

The Library's Web homepage at <http://www.loc.gov/> will offer access to the collections digitized by the competition's winners as well as continue to offer collections of the Library of Congress.

For the first year of the competition, preference will be given to collections from the period 1850-1920, as this is already a focus of many of the Library's electronic collections. Applicants are advised to view these

American Memory collections on-line to determine ways in which their holdings complement or augment what is currently available.

Complete guidelines are available on the World Wide Web at

<http://lcweb2.loc.gov/ammem/award/>

They are also available at

<http://www.ameritech.com/>

Application forms will be available from the same Web sites no later than Aug. 19.

To request guidelines and applications (when available) in printed form, contact

Barbara Paulson at the Library of Congress at
(202) 707-1517; fax (202) 707-6336
e-mail bpau@loc.gov

or

Crystal Ashton, Ameritech Library Services at
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—Guy Lamolinara
Public Affairs Office

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